ARUBA RAP-3 REMOTE ACCESS POINT

High-performance wireless and wired networking for branch offices and teleworkers

The multifunctional Aruba RAP-3 delivers secure 802.11n wireless and wired network access to corporate resources from branch and home offices.

Centrally managed by Aruba Mobility Controllers, the RAP-3 extends corporate resources to remote locations by establishing site-to-site VPN tunnels to the data center.

To eliminate client stickiness, the RAP-3 includes integrated ClientMatch™ technology, which continuously gathers session performance metrics and uses this data to every device to the best AP and radio on the WLAN, even while users roam and RF conditions change.

The RAP-3 also offers a variety of enterprise-class features, including role-based network access, policy-based forwarding, and Adaptive Radio Management™ (ARM), which gives remote workers the same high-quality Wi-Fi experience they get at corporate headquarters.

Delivering a wireless data rate of up to 300 Mbps, the RAP-3 has three 10/100BASE-T Ethernet ports and one USB port for connecting to 3G and 4G networks. It is also available with an 802.3af power-over-Ethernet (PoE) port (RAP-3WNP model) for IP phones or other devices.

At locations that require greater coverage, the RAP-3 can join an Aruba Instant™ WLAN cluster. Simply install additional RAP-3s or any Instant AP and the entire cluster is managed as one. If one Instant AP fails, another AP automatically takes over with no disruption.

For large installations across multiple sites, the Aruba Activate™ service significantly reduces deployment time by automating device provisioning, firmware upgrades, and inventory management. With Aruba Activate, Instant APs are factory-shipped to any site and configure themselves when powered up.

ADVANCED FEATURES

- Zero-touch provisioning as well as automated firmware upgrades and inventory management with the cloud-based Aruba Activate service.
- ClientMatch technology eliminates sticky clients by continuously gathering session performance metrics and using this information to steer them to the best AP and radio.
- ARM technology delivers best-in-class RF management, including automatic transmit power and channel control with auto coverage-hole correction.
- Security:
  - With an OpenDNS service subscription, Aruba Instant RAPs delivers integrated web filtering, malware and botnet protection to every device connected to the WLAN
  - Integrated Trusted Platform Module (TPM) for secure storage of credentials and keys
  - SecureJack-capable for secure tunneling of wired Ethernet traffic

OPERATING MODES

- Wireless
  - 802.11b/g/n Mobility Controller-managed RAP
  - 802.11b/g/n Aruba Instant AP
  - 802.11b/g/n air monitor
  - Hybrid WLAN and air monitor
  - Configurable to support 802.11n HT 20/40 channels or mixed-mode deployment IEEE 802.11b/g/n
- Wired
  - 10/100BASE-T Ethernet, PoE capable
  - User authentication: 802.1X, captive portal, MAC authentication or open access
  - Policy-based forwarding for local resource access

WIRELESS RADIO SPECIFICATIONS

- AP type: 2.4 GHz 802.11n indoor
- Software-configurable 2.4-GHz radio
- 2x2 MIMO with two spatial streams and up to 300 Mbps wireless data rate
- Supported frequency band (country-specific restrictions apply): 2.4000 GHz to 2.4835 GHz
- Available channels: Managed by Aruba Instant or Mobility Controller, dependent upon configured regulatory domain

ARUBA networks

- Supported radio technologies:
  - 802.11b: Direct-sequence spread-spectrum (DSSS)
  - 802.11g/n: Orthogonal frequency-division multiplexing (OFDM)
  - 802.11n: 2x2 MIMO with two spatial streams
- Supported modulation types:
  - 802.11b: BPSK, QPSK, CCK
  - 802.11g/n: BPSK, QPSK, 16-QAM, 64-QAM
- Transmit power: Configurable in increments of 0.5 dBm
- Maximum (aggregate) transmit power: +19 dBm (limited by local regulatory requirements)
- Maximum ratio combining (MRC) for improved receiver performance
- Cyclic delay diversity for improved downlink RF performance
- Short guard interval for 20-MHz and 40-MHz channels
- Space-Time Block Coding (STBC) for increased range and improved reception
- Supported data rates (Mbps):
  - 802.11b: 1, 2, 5.5, 11
  - 802.11g: 6, 9, 12, 18, 24, 36, 48, 54
  - 802.11n: MCS0 to MCS15 (6.5 Mbps to 300 Mbps)
- 802.11n high-throughput (HT) support: HT 20/40
- 802.11n packet aggregation: A-MPDU, A-MSDU

POWER IN

AC-to-DC power adapter (included)

- RAP-3WN:
  - AC input: 100-240 volts AC/0.5 A
  - DC output: 12 volts DC/1.5 A
- RAP-3WNP:
  - AC input: 100-240 volts AC/0.75 A
  - DC output: 48 volts DC/0.75 A

Maximum power consumption:

- RAP-3WN:
  - Maximum (excluding USB): 4.0 watts
  - Maximum (using USB): 6.5 watts
- RAP-3WNP:
  - Maximum (excluding USB and PoE): 5.5 watts
  - Maximum (using USB, no PoE): 8.0 watts
  - Maximum (using USB, full PoE): 26 watts

ANTENNAS

- Two integrated, omni-directional antenna elements for 2x2 MIMO
- Antenna gain: 2.0 dBi

INTERFACES

- Network:
  - E0 (WAN): One 10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - E1-E2 (LAN): Two 10/100BASE-T Ethernet (RJ-45), auto-sensing link speed and MDI/MDX
  - Optional 802.3af PoE (15.4 watts) on the E2 port for IP phones and other equipment
- One port for DC power connector
- One USB 2.0 port (Type A connector)
- One four-pin console interface (custom)

MOUNTING

- Desktop (using stand supplied with product)
- Wall (using optional wall-mount accessory)

MECHANICAL

- Dimensions/weight (unit, with desk stand):
  - 129 mm x 109 mm x 64 mm (5.1” x 4.3” x 2.5”)
  - 180 g (6.6 oz)
- Dimensions/weight (shipping):
  - 218 mm x 150 mm x 64 mm (8.6” x 5.9” x 2.5”)
  - RAP-3WN: 510 g (1.1 lb)
  - RAP-3WNP: 620 g (1.4 lb)

ENVIRONMENTAL

- Operating:
  - Temperature: 0° C to +40° C (+32° F to +104° F)
  - Humidity: 5% to 95% non-condensing
- Storage and transportation:
  - Temperature: -40° C to +70° C (-40° F to +158° F)

REGULATORY

- FCC/Industry of Canada
- CE Marked
- R&TTE Directive 1995/5/EC
- Low Voltage Directive 72/23/EEC
- EN 300 328
- EN 301 489
- UL/IEC/EN 60950

REGULATORY MODEL NUMBERS

- RAP-3WN: RAP-3WN
- RAP-3WNP: RAP-3WNP

CERTIFICATIONS

- CB Scheme Safety, cTUVus
- Wi-Fi certified 802.11b/g/n

WARRANTY

- Limited lifetime warranty

MINIMUM SOFTWARE VERSIONS

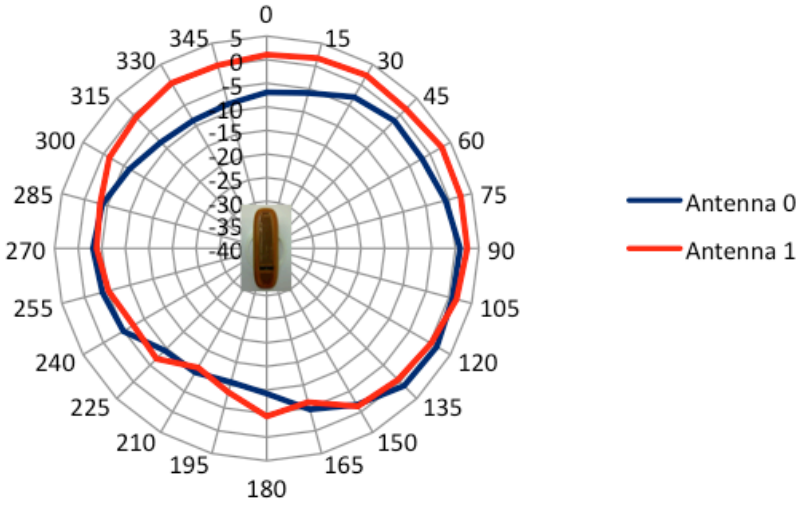
- ArubaOS 6.1.4.0
- Aruba Instant 3.0

RF PERFORMANCE TABLE		
	Maximum transmit power (dBm) per transmit chain	**Receiver sensitivity (dBm)**
802.11b		
1 Mbps	16.0	-97.0
2 Mbps	16.0	–
5.5 Mbps	16.0	–
11 Mbps	16.0	-90.0
802.11g		
6 Mbps	16.0	-90.0
9 Mbps	16.0	–
12 Mbps	16.0	–
18 Mbps	16.0	–
24 Mbps	16.0	–
36 Mbps	16.0	–
48 Mbps	13.0	–
54 Mbps	11.0	-75.0
802.11n HT20		
MCS0/8	16.0	-90.0
MCS1/9	16.0	–
MCS2/10	16.0	–
MCS3/11	16.0	–
MCS4/12	16.0	–
MCS5/13	13.0	–
MCS6/14	11.0	–
MCS7/15	10.0	-72.0

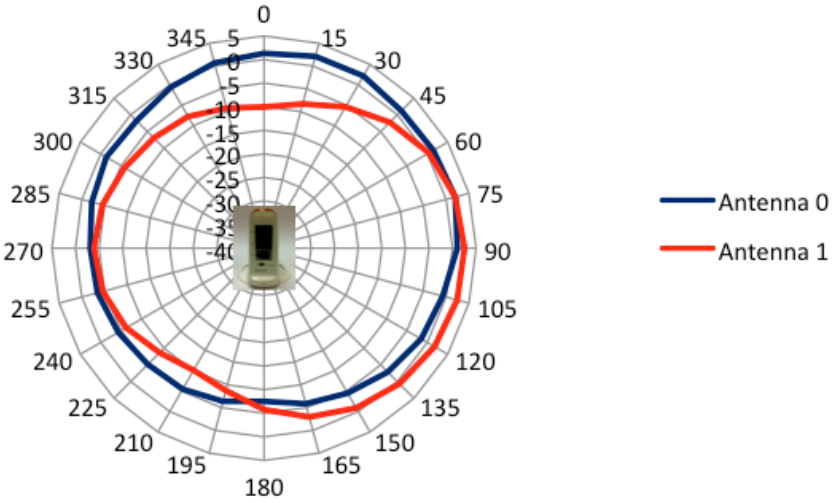
Maximum capability of the hardware provided. Maximum transmit power will be limited by local regulatory settings.

ANTENNA GAIN PLOTS

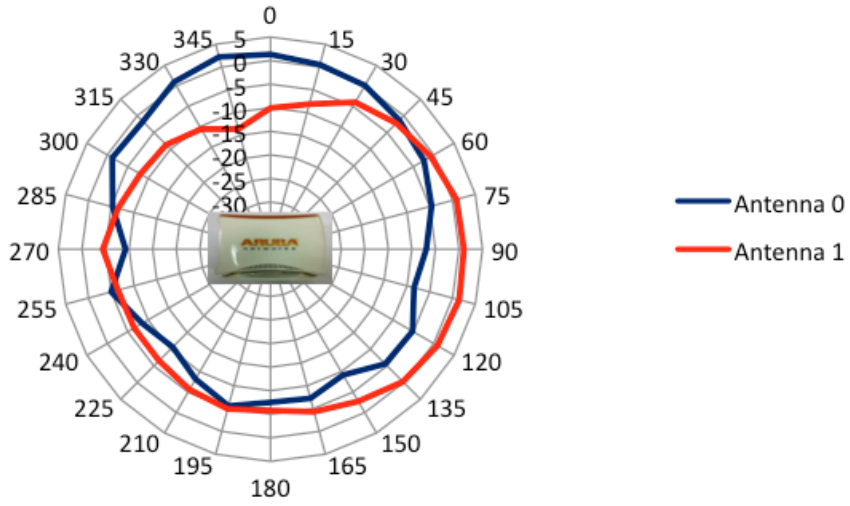
All plots are for Channel 6 (2,436 MHz)



Azimuth (top) view



Elevation (front) view



Elevation (side) view

ORDERING INFORMATION	
Part Number	**Description**
	RAP-3WN
RAP-3WN	Aruba RAP-3WN Remote Access Point (wireless, three 10/100BASE-T, USB)
RAP-3WN-US	Aruba RAP-3WN Remote Access Point (wireless, three 10/100BASE-T, USB) – Restricted regulatory domain: United States
RAP-3WN-IL	Aruba RAP-3WN Remote Access Point (wireless, 3x10/100Base-T, USB) – Restricted regulatory domain: Israel
RAP-3WN-JP	Aruba RAP-3WN Remote Access Point (wireless, three 10/100BASE-T, USB) – Restricted regulatory domain: Japan
	RAP-3WNP
RAP-3WNP	Aruba RAP-3WNP Remote Access Point (wireless, three 10/100BASE-T, USB, PoE out). Note: Unit ships without AC power cord.
RAP-3WNP-US	Aruba RAP-3WNP Remote Access Point (wireless, three 10/100BASE-T, USB, PoE out) – Restricted regulatory domain: United States. Note: Unit ships without AC power cord.
RAP-3WNP-IL	Aruba RAP-3WNP Remote Access Point (wireless, 3x10/100Base-T, USB, POE out) – Restricted regulatory domain: Israel Note: Unit ships without AC power cord.
RAP-3WNP-JP	Aruba RAP-3WNP Remote Access Point (wireless, three 10/100BASE-T, USB, PoE out) – Restricted regulatory domain: Japan. Note: Unit ships without AC power cord.
	Accessories
RAP-3WN-MNT	RAP-3 series wall-mount kit
AP-AC-48V36	48V/36W indoor Access Point AC power adapter. Does not include country-specific power cord (order separately)
AP-CBL-SER	RAP-3 series serial adapter cable (proprietary to DB9 female)

www.arubanetworks.com

1344 Crossman Avenue. Sunnyvale, CA 94089

1-866-55-ARUBA | Tel. +1 408.227.4500 | Fax. +1 408.227.4550 | info@arubanetworks.com

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